BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of)	
)	
Inching CHEN)	Group Art Unit: 2621
)	
Application No.: 09/671,957)	Examiner: D. Czekaj
)	
Filed: September 27, 2000)	
)	
For: METHOD AND APPARATUS FOR)	
MANIPULATING MPEG VIDEO)	

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellant hereby initiates a new appeal and submits herewith a new Appeal Brief as required by 37 C.F.R. § 41.37. This Appeal Brief is in response to the Office Action dated September 5, 2006.

Please apply the previously paid Notice of Appeal fee and Appeal Brief fee to the new appeal.

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I.   REAL PARTY IN INTEREST

The real party in interest is Intel Corporation, a corporation of Delaware.

II.   RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant which relate to, directly affect or are directly affected by the Board's decision in this appeal.

III.   STATUS OF CLAIMS:

Claims 4-9, 13, and 33-38 remain pending.

Claim 33 stands rejected under 35 U.S.C. § 101. Claims 4-6 and 33-35 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Koyanagi et al. (U.S. Patent No. 5,557,332) in view of Wee et al. (U.S. Patent No. 6,553,150). Claims 7-9, 13, and 36-38 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Krishnamurthy et al. (U.S. Patent No. 6,496,607) in view of Li et al. (U.S. Patent No. 6,807,550).

The rejections of claims 4-9, 13, and 33-38 are appealed. These claims are reproduced in the attached Claims Appendix.

IV.   STATUS OF AMENDMENTS:

No amendments have been filed after the Office Action dated September 5, 2006.

V.   SUMMARY OF CLAIMED SUBJECT MATTER:

Regarding independent claims 4 and 33, a method or medium may include decoding a picture of an MPEG stream into a plurality of slices having a set of slices at least partially within an area of the picture, the area being less than all of the picture (Figs. 2B & 2C, elements 201, 203, 206; page 6, lines 7-15); decoding at least the set of slices but not the plurality of slices into a plurality of macroblocks having a set of macroblocks within the area (Figs. 2B & 2C, elements 204, 207; page 6, lines 7-20); and decoding at least the set of macroblocks but not the plurality of macroblocks into pixels (Figs. 2B & 2C, elements 212, 215; page 6, lines 10-22).

Regarding independent claims 7 and 36, a method or medium may include creating a first MPEG compliant substream from an MPEG stream including a plurality of pictures, the first substream corresponding to a first region of interest (ROI), said first ROI being an area of each

picture of the plurality of pictures smaller than the total area of each picture (Fig. 8, elements 801 and 802; page 10, lines 11-23); transmitting the first substream to a first recipient (Fig. 8, elements 802 and 808; page 10, lines 11-23); creating a second MPEG compliant substream from the MPEG stream, the second substream corresponding to a second region of interest (ROI) that is different than the first ROI, said second ROI being an area of each picture of the plurality of pictures smaller than the total area of each picture (Fig. 8, elements 801 and 803; page 10, lines 11-23); and transmitting the second substream to a second recipient that is different than the first recipient (Fig. 8, elements 803 and 809; page 10, lines 11-23).

Regarding independent claim 13, a method may include decoding a picture from an MPEG stream (Fig. 8, element 801; page 10, lines 11-23); selecting a plurality of different Regions of Interest in the picture (Fig. 8, elements 814-820; page 10, lines 11-23); constructing a plurality of different new MPEG pictures corresponding to the plurality of different regions of interest (Fig. 8, elements 802-807; Fig. 9, element 902; page 10, lines 11-23); transmitting the plurality of different new MPEG pictures to a corresponding plurality of different nodes Fig. 8, elements 802-807; Fig. 9, element 903; page 10, lines 11-23); and commanding the plurality of different nodes to display the plurality of different new MPEG pictures (Fig. 8, elements 814-820; Fig. 9, element 904; page 10, lines 11-23).

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

A.   Whether claim 33 is patentable under 35 U.S.C. § 101.

B.   Whether claims 4-6 and 33-35 are patentable under 35 U.S.C. § 103(a) over Koyanagi et al. in view of Wee et al.

C.   Whether claims 7-9, 13, and 36-38 are patentable under 35 U.S.C. § 103(a) over Krishnamurthy et al. in view of Li et al.

VII.   ARGUMENT:

A.   Claim 33 is patentable under 35 U.S.C. § 101.

As a matter of law, the five lines on page 2 of the Office Action do not establish a *prima facie* case of unpatentability. The bare allegation that the "claims have improper language regarding the machine-readable medium" does not even set forth exactly how or why the language of claim 33 is considered to be "improper." Nor does the unelaborated cite to the Interim Guidelines for Examination add sufficient factual or legal grounds to establish a *prima facie* case. The § 101 rejection should be reversed for failure to factually or legally support the allegation.

In an effort to be responsive, however, Applicant notes that the Interim Guidelines published November 22, 2005 in the Official Gazette do not contain definitions of what is or is not "improper language," either in sections I-VII or in annexes I-IV. Annex IV(a) does, however, state:

> USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program.

This section would seem to indicate that claim 33, with its recitations of a "machine-readable medium that provides instructions, which when executed by a set of processors . . ." is statutory under 35 U.S.C. § 101. Finally, Applicant notes that the Office issues many claims of a similar format each year. The § 101 rejection is legally baseless, and it should be reversed for these additional reasons.

B.   Claims 4-6 and 33-35 are patentable under 35 U.S.C. § 103(a) over Koyanagi et al. in view of Wee et al.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

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Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. § 2143.

1. <u>No teaching or suggestion of at least "decoding at least the set of macroblocks but not the plurality of macroblocks into pixels."</u>

Appellant respectfully traverses the § 103(a) rejection of claims 4-6 and 33-35 over <u>Koyanagi et al.</u> in view of <u>Wee et al.</u> Independent claims 4 and 33 require a method and medium including, *inter alia*, "decoding at least the set of slices but not the plurality of slices into a plurality of macroblocks having a set of macroblocks within the area; and decoding at least the set of macroblocks but not the plurality of macroblocks into pixels." The combination of <u>Koyanagi et al.</u> and <u>Wee et al.</u>, even if it were proper, fails to teach or suggest all elements of the claimed method and medium.

Page 3 of the Office Action alleges that col. 24, lines 39-53, of <u>Wee et al.</u> teach or suggest "only decoding a set of slices."

a. <u>Insufficient evidence to establish a *prima facie* case:</u>

Page 3 of the Office Action does not allege or show that <u>Wee et al.</u> teaches or suggests "decoding at least the set of macroblocks but not the plurality of macroblocks into pixels," as set forth in claims 4 and 33. Hence, a *prima facie* case of obviousness has not been established for these claims, because no evidence from either <u>Koyanagi et al.</u> or <u>Wee et al.</u> has been provided in the stated § 103(a) rejection in Final Office Action to show a teaching or suggestion of this second decoding limitation.

b. <u>Limitation not taught or suggested:</u>

Nor does the cited portion of <u>Wee et al.</u> teach or suggest this second decoding limitation. The relevant part, col. 24, lines 43-47, of <u>Wee et al.</u> states only:

> Using this mapping, for example, if one desired to extract a ball only from a compressed representation of FIG. 15, one would need to identify and decode both regions "A" and "C," which would include ball data.

While this portion of <u>Wee et al.</u> arguably teaches decoding certain slices but not others (in view of Fig. 15, which segments an image by slices), it does not teach or suggest decoding certain macroblocks but not others within decoded slices, as set forth in claims 4 and 33. This portion of

<u>Wee et al.</u>, taken at face value, teaches or suggests decoding all macroblocks within a slice. It does not teach or suggest different decoding treatment of macroblocks within slices.

As a further example of this slice-only disclosure of <u>Wee et al.</u>, see col. 24, line 57, through col. 25, line 3, which refer to Figs. 17-19 that indicate type of data by slice, and not by macroblock within the slices. Thus, the cited portion of <u>Wee et al.</u>, and the rest of <u>Wee et al.</u>, fails to teach or suggest at least "decoding at least the set of macroblocks but not the plurality of macroblocks into pixels" as required by claims 4 and 33.

Because the combination of <u>Koyanagi et al.</u> and <u>Wee et al.</u> fails to teach or suggest all elements of independent claims 4 and 33, a *prima facie* case of obviousness has not been established for these claims. The § 103(a) rejection of these claims is improper and should be reversed for at least this reason.

2.   <u>No motivation or suggestion to combine Koyanagi et al. and Wee et al.</u>

A *prima facie* case of obviousness also has not been established for claims 4 and 33, because no motivation or suggestion has been shown to combine <u>Koyanagi et al.</u> and <u>Wee et al.</u>. Page 3, 4-6 lines from the bottom, of the Office Action points to a problem disclosed, and solved, by <u>Wee et al.</u> (i.e., "that prior art computing systems must entirely decompressed/decoded [sic] a video signal even if only a small part of the signal is being edited") as allegedly motivating the combination with <u>Koyanagi et al.</u> This, however, is circular logic. Pointing to an advantage or solution to a problem in one reference (i.e., <u>Wee et al.</u>) does *not* provide motivation to solve this problem in the other reference (i.e., <u>Koyanagi et al.</u>) unless that other reference has the same problem or deficiency or need as the first. In the Office Action, there has been no showing that <u>Koyanagi et al.</u> has the problem of having to decode an entire image even if only a small part of the image is being edited (<u>Wee et al.</u>, col. 2, lines 7-9).

In fact, <u>Koyanagi et al.</u> is primarily concerned with decoding entire images using parallel processing (see Abstract). <u>Koyanagi et al.</u> is not concerned with editing only part of an image, the genesis of the problem in <u>Wee et al.</u> Because <u>Koyanagi et al.</u> does not have the same need or deficiency that <u>Wee et al.</u> cures, one of ordinary skill in the art would not have been motivated to add the teachings from <u>Wee et al.</u> A *prima facie* case of obviousness also has not been established for claims 4 and 33 for at least this additional reason.

Because a *prima facie* case of obviousness has not been established for claims 4 and 33, the § 103(a) rejections of these claims are improper and should be reversed.

Dependent claims 5, 6, 34, and 35 are allowable at least by virtue of their dependency from claims 4 and 33.

C.   <u>Claims 7-9, 13, and 36-38 are patentable under 35 U.S.C. § 103(a) over Krishnamurthy et al. in view of Li et al.</u>

   1.   <u>The § 103(a) rejection is legally insufficient.</u>

Page 4 of the Office Action prefaces the rejection of claims 7-9, 13, and 36-38 with "note the examiners rejection for claim 4." Claim 4, however, is rejected over <u>Koyanagi et al.</u> in view of <u>Wee et al.</u>, and does not address or otherwise relate to the primary reference for claims 7-9, 13, and 36-38, <u>Krishnamurthy et al.</u>, at all. Thus, the reference to the "rejection for claim 4," even if it were proper, provides zero evidence from <u>Krishnamurthy et al.</u> Regardless of what <u>Li et al.</u> teaches or suggests, a *prima facie* case of obviousness has not been established due to the lack of evidence from <u>Krishnamurthy et al.</u> See M.P.E.P. § 2143. The rejection of claims 7-9, 13, and 36-38 should be reversed for at least this reason.

   2.   <u>No teaching or suggestion of at least "creating a second MPEG compliant substream from the MPEG stream, the second substream corresponding to a second region of interest (ROI) that is different than the first ROI; and transmitting the second substream to a second recipient that is different than the first recipient."</u>

Appellant respectfully traverses the § 103(a) rejection of claims 7-9, 13, and 36-38 over <u>Krishnamurthy et al.</u> in view of <u>Li et al.</u> Independent claims 7 and 36 require a method and medium including, *inter alia*, "creating a second MPEG compliant substream from the MPEG stream, the second substream corresponding to a second region of interest (ROI) that is different than the first ROI; and transmitting the second substream to a second recipient that is different than the first recipient." Independent claim 13 requires a method including, *inter alia*, "constructing a plurality of different new MPEG pictures corresponding to the plurality of different regions of interest; and transmitting the plurality of different new MPEG pictures to a corresponding plurality of different nodes." The proposed combination of <u>Krishnamurthy et al.</u> and <u>Li et al.</u>, even if it were proper, fails to teach or suggest all elements of the claimed methods and medium.

Page 4, lines 16-18, of the Office Action alleges that col. 12, lines 30-51, of Li et al. "discloses creating a second MPEG substream that is different than the first ROI."

The relevant portion of col. 12 of Li et al. states (with emphasis added):

In one exemplary implementation, a client application, i.e. browser, implements software code that renders the current view over and over again *using the file portions that are present in the Vfile. A user may interact at any time with the browser to change the region of interest* and viewing resolution (for a JPEG 2000 browser), or to change the viewing position, angle, and FOV (for an IBR browser). In any instance, *the browser renders the view based upon the content available in the Vfile.* An important feature of the invention is that *information that is not present in the Vfile, but which is necessary for the currently rendered view, is supplemented while the view is being rendered.* Supplementation takes place by calling the server so that the additional file portions can be downloaded to the client and stored in the Vfile.

Fairly read, this portion of Li et al. discloses a user changing a region of interest (ROI) in a browser, and rendering the new view based on content in a file. If the information necessary for the rendered view is not present in the file, it may be supplemented. This portion does not explicitly or "necessarily" (i.e., inherently) teach or suggest creating a new substream corresponding to a second ROI, because such ROI information may be present in the Vfile, and thus not supplemented by any type of stream.

Even if this portion of Li et al. did teach or suggest creating a supplementing stream, it does not teach or suggest that such stream is an "MPEG compliant substream" as claimed.

Further, Li et al. explicitly teaches transmitting any information to the same recipient (i.e., the same Vfile), and thus does not teach or suggest "transmitting the second substream to a second recipient that is different than the first recipient," as set forth in claims 7 and 36 or "transmitting the plurality of different new MPEG pictures to a corresponding plurality of different nodes," as required by claim 13. That Fig. 2 of Li et al. shows multiple clients is irrelevant, because col. 12, lines 30-51, of Li et al. refers explicitly to "a user," "the browser," and "the Vfile," all singular.

Thus, a *prima facie* case of obviousness has not been established for claims 7, 13, and 36, because the combination of Krishnamurthy et al. and Li et al. fails to teach or suggest all

elements of the claims. The § 103(a) rejection of claims 7, 13, and 36 should be reversed for at least this reason.

> 3.   No motivation or suggestion to combine Krishnamurthy et al. and Li et al.

A *prima facie* case of obviousness also has not been established for claims 7, 13, and 36, because no motivation or suggestion has been shown to combine Krishnamurthy et al. and Li et al. as proposed. Pages 4 and 5 of the Office Action contain only the bare legal conclusion that "it would have been obvious . . . in order to obtain an apparatus that becomes more versatile by being able to transmit data to a plurality of different users." This is an unsupported conclusion, nothing more.

No evidence from either reference or other technical reasoning has been provided to support this conclusion. Without any supporting evidence or facts, a *prima facie* case of obviousness cannot be established. See M.P.E.P. § 2142 ("The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness."). A *prima facie* case of obviousness also has not been established for claims 7, 13, and 36 for at least this additional reason.

Because a *prima facie* case of obviousness has not been established for claims 7, 13, and 36 over Krishnamurthy et al. and Li et al., the § 103(a) rejections of claims 7, 13, and 36 are improper and should be reversed.

Claims 8, 9, 37, and 38 are allowable at least by virtue of their dependency from claims 7 and 36.

CONCLUSION

For the reasons set forth above, Appellant respectfully solicits the Honorable Board to reverse the Examiner's rejection of claims 4-9, 13, and 33-38.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0221 and please credit any excess

fees to such deposit account.

Respectfully submitted,

Dated: <u>November 17, 2006</u>

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VIII. CLAIMS APPENDIX

4.   A computer implemented method comprising:

decoding a picture of an MPEG stream into a plurality of slices having a set of slices at least partially within an area of the picture, the area being less than all of the picture;

decoding at least the set of slices but not the plurality of slices into a plurality of macroblocks having a set of macroblocks within the area; and

decoding at least the set of macroblocks but not the plurality of macroblocks into pixels.

5.   The method of claim 4 wherein the area is a region of interest.

6.   The method of claim 4 further comprising displaying the decoded set of macroblocks.

7.   A computer implemented method comprising:

creating a first MPEG compliant substream from an MPEG stream including a plurality of pictures, the first substream corresponding to a first region of interest (ROI), said first ROI being an area of each picture of the plurality of pictures smaller than the total area of each picture;

transmitting the first substream to a first recipient;

creating a second MPEG compliant substream from the MPEG stream, the second substream corresponding to a second region of interest (ROI) that is different than the first ROI, said second ROI being an area of each picture of the plurality of pictures smaller than the total area of each picture; and

transmitting the second substream to a second recipient that is different than the first recipient.

8.   The method of claim 7 further comprising synchronizing display of the first substream with the second MPEG compliant substream from the MPEG stream.

9. The method of claim 7 wherein the creation and transmission of the first and second substreams are performed in a lock-step manner.

13. A computer implemented method comprising:

decoding a picture from an MPEG stream;

selecting a plurality of different Regions of Interest in the picture;

constructing a plurality of different new MPEG pictures corresponding to the plurality of different regions of interest;

transmitting the plurality of different new MPEG pictures to a corresponding plurality of different nodes; and

commanding the plurality of different nodes to display the plurality of different new MPEG pictures.

33. A machine-readable medium that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations comprising:

decoding a picture of an MPEG stream into a plurality of slices having a set of slices at least partially within an area of the picture, the area being less than all of the picture;

decoding at least the set of slices but not the plurality of slices into a plurality of macroblocks having a set of macroblocks within the area; and

decoding at least the set of macroblocks but not the plurality of macroblocks into pixels.

34. The machine readable medium of claim 33 wherein the area is a region of interest.

35. The machine readable medium of claim 33 further comprising displaying the set of decoded macroblocks.

36. A machine-readable medium that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations comprising:

creating a first MPEG compliant substream from an MPEG stream including a plurality of pictures, the first substream corresponding to a first region of interest (ROI), said first ROI

being an area of each picture of the plurality of pictures smaller than the total area of each picture;

transmitting the first substream to a first recipient;

creating a second MPEG compliant substream from the MPEG stream, the second substream corresponding to a second region of interest (ROI) that is different than the first ROI, said second ROI being an area of each picture of the plurality of pictures smaller than the total area of each picture; and

transmitting the second substream to a second recipient that is different than the first recipient.

37.   The machine readable medium of claim 36 that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations further comprising synchronizing display of the first substream with the second MPEG compliant substream from the MPEG stream.

38.   The machine readable medium of claim 36 further comprising a lock-step mechanism governing the creation and transmission of the first and second substreams.

IX.   <u>EVIDENCE APPENDIX</u>

None.

X.   <u>RELATED PROCEEDINGS APPENDIX</u>

None.